Message

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Sent: 5/17/2016 2:06:45 PM
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Subject: News Clips

National eyes on Plum Island

Newsday

May 16, 2016

The for-sale sign that has been hanging on Plum Island for almost eight years is very close to coming down.

The House of Representatives is expected to pass a bill Monday afternoon designed to preserve the island off the North Fork in Long Island Sound. The bill is sponsored by Rep. Lee Zeldin, and it would stop the Department of Homeland Security attempt to sell the island, which houses a federal research lab, to the highest bidder. Developer Donald Trump once eyed the 840-acre site as a golf course and said he would pay $100 million.

Once the Senate passes its companion version, the feds must develop alternative-use plans for the island, including transferring it to local governments for the purposes of education, research and conservation.

The timing is no accident. Zeldin, whose 1st CD seat encompasses most of eastern Suffolk, is facing a strong election challenge. The freshman Republican made his case to House GOP leaders and they put his bill on a fast track to passage. Zeldin says Homeland Security Committee chairman Michael McCaul steered it through his panel and House Majority Leader Kevin McCarthy got involved to get it a fast vote.

— Rita Ciolli

NYT

Pesticide Exposure May Increase Risk of A.L.S.

By Nicholas Bakalar

May 12, 2016 1:39 pm

Photo Exposure to pesticides may increase the risk for amyotrophic lateral sclerosis, also known as Lou Gehrig's disease, a new study has found.

The study, in JAMA Neurology, included 156 patients with A.L.S. and 128 controls. All participants completed questionnaires providing information on age, sex, ethnicity, education, marital status, residential history, occupational history, smoking and military service. The researchers used the information on residence and occupation to estimate long-term exposure to pesticides, and then took blood samples to determine serum levels of 122 persistent environmental pollutants.

The scientists divided exposure into four time periods: ever exposed, exposed in the last 10 years, exposed 10 to 30 years ago, and exposed more than 30 years ago.

Exposure to pesticides at any time was associated with a fivefold increased relative risk for A.L.S. compared to no exposure. Even exposure more than 30 years ago tripled the risk. Military service was associated with double the risk, confirming findings of previous studies.

“This is an association, not causality,” cautioned the senior author, Dr. Eva L. Feldman, a professor of neurology at the University of Michigan. “We found that people with A.L.S. were five times more likely to have been exposed to pesticides, but we don’t want people to conclude that pesticides cause A.L.S.”

Rapid decline of diamondback terrapins in Meadowlands may lead to ban on harvesting

BY JAMES M. O'NEILL

THE RECORD

May 17, 2016, 7:24 AM

The diamondback terrapin — the only turtle species to live in the Hackensack River, the Meadowlands and New Jersey's other coastal marshes — has seen such a serious population decline because of harvesting that the Christie administration has proposed an indefinite ban on harvesting of the species.

The move comes after two successive years when the state's annual harvest season from November through March has been cut short by the Department of Environmental Protection.

The harvesting has been on the rise because of increasing demand for terrapins as a food delicacy in Asia.

"This is very welcome news," said Jack Cover, a terrapin expert and general curator at the National Aquarium in Baltimore. "While some states don't have a lot of terrapin habitat, New Jersey has a lot of rich coastal habitat for terrapins, and if there's any place you could capture large numbers of them, it's New Jersey."

Terrapins play an important role along New Jersey's coastline, from the Meadowlands to Barnegat Bay and Delaware Bay, feeding on snails that can overgraze marsh grasses, which can reduce coastal areas to barren mudflats.

"At this time of year especially you see them all over the Meadowlands, up and down the Hackensack on mudflats at low tide," said Bill Sheehan of the Hackensack Riverkeeper. "It's a keystone species in our coastal marshes, and they're very photogenic."

The DEP said that terrapins, considered a species of concern in New Jersey, are a delicacy in some Asian cuisines.

These countries, having depleted their own native Asian turtle populations, now rely more on imports from the United States. The turtles are used in soups, but also are seen as having medicinal qualities and even helping to ensure a long life, Cover said. And while turtles are a status symbol to serve, more Chinese are now able to afford them, increasing demand further, he said.

There were 754 shipments of turtles from the United States between 2000 and last year, according to U.S. Fish and Wildlife. Nearly 80 percent of wild caught shipments were exported to Hong Kong, followed by nearly 8 percent to Taiwan, and 5 percent to Japan.

The U.S. Fish and Wildlife Service estimated in 2013 that diamondback terrapins sold for between $35 and $100 each, with an average price of $80. Individual hatchlings sold in Hong Kong pet markets for up to $100.

In the past, harvesting was limited in New Jersey, conducted by small numbers of harvesters using hand methods. But in 2013 a single harvester using a commercial crabbing dredge took more than 3,500 terrapins from two locations in southern New Jersey and sold them to a Maryland aquaculture facility that raises the turtles for overseas markets.

"That incident was really a wake-up call, making us realize just how vulnerable this species had become," said Division of Fish and Wildlife Director David Chanda. "We have plenty of observational and anecdotal evidence that the species has been in decline. We need to take a step back and get a better handle on the measures that will be needed to restore this species."

Terrapins live in salt marshes and tidal areas from Cape Cod to the Florida Keys, and west along the Gulf Coast into Texas.

New Jersey, New York and Louisiana are the only three states left that allow a commercial terrapin harvest, Cover said. Earlier this year, New York State's Department of Conservation said it anticipated proposing to close its harvest season. Florida allows a personal harvest of one terrapin a day, and Delaware allows four per day during its harvest season. Eight Atlantic Coast states prohibit all harvest of terrapins.

The New Jersey proposal says that "the harvest of adult diamondback terrapins reduces populations that are already at risk due to predation, motor vehicle mortality, and habitat alteration. Therefore, closing the diamondback terrapin season will help to curtail the excessive adult mortality."

Cover said a drop in population cannot easily be replaced because it takes many years for a terrapin to reach sexual maturity. Adding to the pressure on the species is that they generally have a low birthrate and a low rate of survival to adulthood. Only about 20 percent of hatchlings successfully make the journey from nesting sites to their salt marsh habitat. The hatchlings are subject to overheating, drying out and predation from raccoons, foxes, gulls and crows.

"We know that this species, which holds a special place in the hearts of residents of coastal areas as well as visitors, faces many threats and has been declining in numbers for many years now," state DEP Commissioner Bob Martin said in a statement announcing the proposal. "Banning all harvesting is the right thing to do to ensure future generations can continue to enjoy seeing diamondback terrapins in the wild."

Sheehan said that in recent years, he has come across nets people have left to trap the turtles in the Meadowlands. Given that they eat the smaller fish and crabs in the river, and those species are known to bio-accumulate some of the toxic pollutants that still plague the Hackensack sediment, the turtles themselves probably should not be harvested and eaten by people, Sheehan said.

"It's very different from harvesting terrapins down around Stone Harbor or other areas along the Jersey Shore," he said.

Cover agreed. "They definitely would bio-accumulate those pollutants," he said.

A few years ago, as Sheehan was getting ready for one of the Hackensack Riverkeeper ecocruises, which start in Secaucus, he saw a man pull up with a boat filled with about 50 to 100 traps.

The man told Sheehan he was going to harvest terrapin, and showed him the permit he had from the state Division of Fish and Wildlife to do so in the lower Hackensack and Passaic.

"These are known to be contaminated waters — it didn't make sense to me to harvest terrapins from this area," Sheehan said.

When the man wheeled his boat down to the water, however, it wouldn't start. "I thought it must have been some divine intervention," Sheehan said.

The DEP will hold a public hearing on the proposed harvest ban on June 13 at 6 p.m. at the Stafford Township Municipal Building in Manahawkin. The agency will also be collecting public comments on the proposal for the next 60 days at nj.gov/dep/rules/comments.

May 13, 2016, 1:31 PM

N.J. environmental agency has cut back on policing polluters, group says

BY JAMES M. O'NEILL

THE RECORD

The state's environmental protection agency has vastly cut back its policing of industrial and other polluters in recent years, raising the likelihood that companies will be less compliant with environmental laws, according to a report issued Wednesday by an environmental group.

The number of site inspections made by the state Department of Environmental Protection fell from more than 60,000 in the 2011 fiscal year to fewer than 12,000 in 2014, a drop of 80 percent, according to the New Jersey

Sierra Club, which used data posted on the DEP website and records it received through an open records request.

The environmental group's report also indicates that the number of enforcement actions by the

"The DEP is the environmental cop on the beat, and when people know no one is looking, they are less likely to report a spill or clean it up because they know they're not going to get caught," said Jeff Tittel, the New Jersey Sierra Club's director. "More enforcement generates more compliance, and there's been a serious drop under this administration. They're creating a polluters' holiday."

The state DEP countered that the decrease was due in large part to a shift in focus and to the fact that the state's regulated community largely understands its obligations under state environmental laws and abides by the rules.

"It's not just about enforcement or fines, it's about compliance, and more businesses get it, so we see fewer enforcement actions," said DEP spokesman Larry Hajna. "The cop is still out on the beat, still doing the job, but we're more focused. We are focusing attention on the most significant enforcement cases. We know who the good actors are and we will return repeatedly to the ones not behaving.

Tittel, however, said that if compliance were improving, the state's annual number of chemical spills would be dropping -- but it isn't.

Hajna said the DEP's compliance division has taken on some new roles, such as working with regulated companies to develop environmental stewardship programs that promote green technology in buildings, energy efficient lighting and manufacturing processes that use fewer harmful chemicals or produce fewer emissions.

"Our regulated community in New Jersey gets it," Hajna said. "We're not stuck in 1972. We have a very responsible regulated community out there. We recognize the regulated community is not out there to destroy the environment."

For decades, the DEP issued an annual report summarizing the activities of its enforcement and compliance division, but stopped doing so after 2012, when Wolfgang Skacel, a DEP assistant commissioner who produced the report, retired.

The Sierra Club pieced together similar data for 2013 and 2014 to produce the comparison with the earlier data the DEP had issued in its reports. Tittel said the Sierra Club consulted Skacel on what his reports included to properly mirror the data.

Skacel's reports had also included data on the number of investigations the enforcement unit handled each year, but the DEP told the Sierra Club it did not have such numbers for 2013 and 2014.

The Skacel reports showed that in the first three years of Christie's time as governor, DEP site inspections doubled to 60,234. Then, according to the Sierra Club data, inspections declined sharply. Data on enforcement actions showed a similar, though less extreme, pattern.

The DEP's Hajna said the information on inspections and enforcement actions is easily accessible on the DEP website. But the website data excludes inspections for some categories of regulation that are included in the data that Skacel had produced for his annual reports.

Man who brought PFOA contamination to light receives national award

By Lydia Kulbida

May 13, 2016, 10:39 pm

NEW YORK (NEWS10) – A local champion of environmental issues was recognized on the national stage Friday for his efforts in bringing the Hoosick Falls water crisis to light.

Michael Hickey is the one who discovered the PFOA contamination two years ago. Hickey suspected the chemical may be in the village's drinking water. Knowing there was no law requiring water systems to test for it, he took his own samples and paid to have them tested.

Hickey said he notified officials, but he said they were reluctant to help.

News of the contamination was made public in late 2015. Following the contamination, Hoosick Falls installed a filtration system to ensure people have clean drinking water. PFOA has also been found in Petersburgh and Bennington, Vt.

Since then, Hickey has been working to find a solution to the water crisis. On Friday, he was one of 28 people honored by the U.S. Environment Protection Agency for protecting the environment at the Environmental Champion Awards.

But he's not comfortable with being called a hero.

"That's never what it was about," he said. "It was about the right message and going in the right direction with our water as a whole in our community. I think we're on that path. I think there are still improvements that need to be done, and hopefully, we're seeing other communities go in the right direction and not have the same obstacles we had in the beginning."

"I often worry if Michael Hickey had not sent off water samples at his own cost to an independent laboratory, I'm not sure we would have known about the contamination in Hoosick Falls," EPA Regional Administrator Judith Enck said.

Dr. Marcus Martinez, from Hoosick Falls, was also honored on Friday. He works with the group Healthy Hoosick Water and helped with medical monitoring of PFOA.

On the Bright Side: EPA lauds SUCO's dining services

Daily Star

By Denise Richardson Staff Writer

Updated May 15, 2016

Contributed From left, Murray Fisher, founder of New York Harbor School and keynote speaker; Rebecca Molloy, of Sodexo Dining Services at SUNY Oneonta; and Diane Williams, Oneonta Auxiliary Services; stand with Judith Enck, regional administrator with the Environmental Protection Agency; at the region's office in Manhattan on Friday.

A local college food service has been recognized for reducing waste, recycling and other environmental sustainability initiatives.

Sodexo Dining Services at SUNY Oneonta was named an "environmental champion" on Friday by the U.S. Environmental Protection Agency for work trimming food waste and other sustainability projects.

Sodexo Dining Services at the local public college was among 28 recipients of Environmental Champion Awards presented with plaques at the EPA regional office in Manhattan during a ceremony Friday afternoon, officials said. Organizations, institutions, businesses and individuals were among awardees from across the state.

Judith Enck, EPA regional administrator, said presenting the awards is a privilege for EPA because it recognizes dedication and accomplishments by environmental trailblazers.

"These individuals and organizations from across New York are an inspiration, encouraging us to do our best to protect the environment every day," Enck said in a media release.

Sodexo was recognized for addressing sustainability issues at the State University College at Oneonta campus.

Sodexo has established projects aimed to reduce food waste through composting, donation, food waste audits, and the implementation of trayless dining halls, according to the release, and as a result, food waste has been cut by 15 percent.

Jimmy Hamm, general manager of the local Sodexo Dining Services, said a dishwasher is being installed that will save 525,000 gallons of water during a school year. Also, between 20 tons and 22 tons of pre-consumer food waste, such as vegetable clippings and stale bread but no meat, is donated to a pig farm in Andes, he said Friday.

Hamm said the corporate Sodexo office suggested the local organization apply for the EPA award, Hamm said, and Hannah Morgan, SUNY Oneonta sustainability coordinator, completed the nominating form.

Also, Sodexo donates vegetable oil from dining halls to heat College Camp. Sodexo diverts 800 to 900 gallons of used oil from the landfill each year and saves the college $10,000 per year on fuel costs, the release said.

Hamm said recyling and waste-cutting initiatives seems like second-nature now but the EPA recognition was good news.

"It's pretty amazing," he said Friday. "It's a great feeling."

The local Sodexo has a management team of about 25 people and a staff of about 110 full-time employees and about 250 students workers, according to Hamm. The operation has three dining halls, which provide about 40,000 meals a week, plus several cafes and a catering service, he said.

Hamm said students he told about the award expressed excitement, too. SUNY Oneonta graduation ceremonies are Saturday.

Officials said Rebecca Molloy, operations director of the local Sodexo Dining Services, and Diane Williams, executive director of the Oneonta Auxiliary Services, represented the SUNY Oneonta campus at Friday's ceremonies in Manhattan.

Each spring, EPA honors individuals and organizations who have contributed significantly during the previous year to improving the environment in New Jersey, New York, Puerto Rico, the U.S. Virgin Islands and eight federally recognized Indian Nations in New York state.

"Sodexo, specifically at SUNY Oneonta, is doing great work," Enck said in a telephone interview Friday morning. The EPA has prioritized food waste and wants to identify companies and institutions that are serious about that goal, she said.

Every year in the United States, about 31 percent, or 133 billion pounds, of the overall food supply is wasted, according to the EPA website. The waste has an impact on food security, resource conservation, officials said, and contributes to the 18 percent of total U.S. methane emissions that come from landfills.

Reducing the amount of food waste sent to landfills can help ease the impact of climate change and provide food for millions of people, the site said.

In September, officials with EPA and the U.S. Department of Agriculture announced a first national food-reduction goal. They called for a 50 percent cut in food waste by the year 2030 toward conserving natural resources and protecting the planet from climate change, the EPA website said.

Sodexo Dining Services at SUNY Oneonta is ahead in efforts to reduce food waste, Enck said, and presenting its representatives with the distinguished Environmental Champion Award is a delight.

Other award recipients were involved in research of aquatic ecosystems, protecting terns, a variety of recycling initiatives, addressing water quality and preserving resources, among many more projects acknowledged Friday.

"It's actually my favorite event of the year," Enck said. "We get to recognize true environmental leadership."

Opinion

State can no longer ignore N.J.'s aging water, sewer infrastructure

By Star-Ledger Guest Columnist

May 17, 2016 at 7:46 AM

By Robert Briant Jr.

Robert Briant Jr. is chairman of the Clean Water Construction Coalition and CEO of the Utility and Transportation Contractors Association.

You cannot see it, but below New Jersey, a catastrophe is brewing. Underneath our state lay thousands of miles of century-old water and sewer lines whose shelf life is set to expire any day.

The result will be a catastrophic danger to the health of all residents of New Jersey.

We can no longer ignore this crisis. It is time we develop a comprehensive strategy for improving our water and sewer infrastructure to ensure we deliver clean water to the men, women, children and businesses of our state.

Combined sewer outfalls pump sewage into waterways during storms, and there are 217 of them around New Jersey.

New Jersey has miles and miles of old, deteriorating water and sewer infrastructure lines. It is not hyperbolic to say that more situations like those in Newark and Camden will occur if we don't act now.

We have already seen the impact of ignoring this crisis.

In Newark, water sampling tests indicated that in the state's largest school district, 30 out of 67 schools had lead concentration above 15 parts per billion. That is the level at which the Federal Environmental Protection Agency recommends corrective action be taken. As a result, faucets and drinking fountains in these schools were shut off and bottled water had to be brought in. These elevated levels of lead are being tied to Newark schools' aging infrastructure.

In Camden, there are schools whose water fountains have been shut down for years. Students and staff instead must use bottled water machines. It costs the school district $75,000 a year just to provide bottled water and cups.

But this isn't just an urban problem.

Water samples from suburban municipalities across the state have detected unacceptable levels of lead due to the lead solder and lead lined service lines. In 2014, the state Department of Health found that hundreds of water systems throughout the state had traces of arsenic or nitrate in the water. The Centers for Disease Control and Prevention notes Salem, Cumberland, Essex, and Mercer Counties had the highest numbers of children impacted by lead poisoning.

Lead in drinking water is no benign matter. According to the World Health Organization, "Young children are particularly vulnerable to the toxic effects of lead and can suffer profound and permanent adverse health effects, particularly affecting the development of the brain and nervous system."

The health issues related to aging infrastructure are not limited to lead. Our sewer systems are so old and outdated that in many areas across the state, even a light rainfall can result in raw sewage washing into waterways like the Passaic River and Raritan Bay.

At more than 200 spots in New Jersey, outdated sewer systems pour more than 23 billion gallons of raw sewage into the water each year, the EPA says

When aging infrastructure is not poisoning our drinking water, it is creating havoc and waste. In Hoboken, a water line broke and the resulting sinkhole devoured an entire car. Numerous New Jersey municipalities have water mains – which deliver treated drinking water — leaking so badly that up to 60 percent of the treated water never reaches customers. I'll repeat that: In some systems, up to 60 percent of the treated drinking water is lost. Think of the wasted money and resources occurring every day due to our failure to address this problem.

A March Rutgers-Eagleton poll indicates that 52 percent of New Jerseyans are concerned about the water they drink. It also shows that a majority of residents believe that water pollution is a serious problem. This crisis can no longer be ignored simply because we can't see it crumbling before our eyes. The time to act is now.

I am proud to chair the Clean Water Construction Coalition, which helps focus national attention on the need for federal legislation to improve water and wastewater infrastructure. One of our organization's highest priorities has been fully funding Army Corps of Engineers programs and the reauthorization of the Federal Clean Water and Federal Safe Drinking Water Acts. It has been nearly 30 years since the Clean Water Act was last reauthorized.

Our federal representatives in New Jersey have been loudly advocating for the increased federal funding and protections that the Clean Water Construction Coalition has called for. What we need now is for Congress to come together and realize the gravity of the situation — the clock is ticking.

As someone who has fought for these kinds of improvements at the federal level for over a decade, I know this will not be easy. But nothing short of the public health and safety of all New Jerseyans is at risk.

NYT

A Place Where Lightning Strikes Almost 300 Days a Year

By JOANNA KLEIN

MAY 16, 2016

Photo In the village of Congo in Venezuela along Catatumbo River, a lightning show can be counted on at some point almost every day. Credit Jonas Piontek

They call it “the Never-Ending Storm of Catatumbo,” or “Maracaibo’s Lighthouse.” Its lightning is so familiar, people in the state of Zulia in Venezuela even put it on their flag.

Less than half an hour after the first cloud forms, it starts to flash. It does this faster and faster — 200 flashes a minute is not uncommon. After that, the cloud becomes a giant bulb that lights up the night.

“You can read a newspaper in the middle of the night because it’s so bright,” said Jonas Pointek, a photographer who has documented the storms.

Photo A creature that photographer identified as a large bat flew in front of the camera at the very moment lightning struck at Catatumbo Lightning Camp, which guarantees tourists the opportunity to sleep amid dramatic storms. Credit Jonas Piontek

Locals in the area known as Lake Maracaibo, by the Catatumbo River in Venezuela, can expect a display of this sort during more than 80 percent of the year, mainly from April to November — an average of 297 days, to be exact, according to an analysis published in the Bulletin of the American Meteorological Society.

This was enough that NASA has declared the area the lightning capital of the world, dethroning Africa’s Congo Basin. The reason for the change: Sixteen years worth of data from the lightning sensors on a satellite allowed the team to analyze the numbers with unprecedented precision.

“Storm chasers have to drive down highways or up mountains,” said Alan Highton, of Catatumbo Camp, who has specialized in lightning tourism in the area for eight years. “But the unique thing about the Catatumbo is you can just sit there at our camp, drink a cold beer, and the storms will come to you.” He says the prettiest storms come in November, and according to the data, they peak in September.

The secret to Catatumbo lightning lies in the unique topography of the land. The Andes Mountains surround Lake Maracaibo like a horseshoe from the south, and the Caribbean Sea meets it on the north. Cool mountain breezes move into the valley at night and collide with warm wind from the sea and lake in a way that creates optimal conditions for lightning.

Although most people survive lightning strikes with severe neurological injuries, they can occasionally be deadly. (In recent days, 65 people were killed by lightning in Bangladesh, according to CNN.)

According to Mr. Highton, when lighting is near, the residents do little to prepare other than stay indoors, where even if lightning strikes a tin roof, they're protected by wooden floors. But fishermen have been killed on the lake.

"On a boat, you can run but you can't hide," Mr. Highton said.

According to the National Oceanic and Atmospheric Administration, the odds of being struck by lightning in your lifetime in the United States are 1 in 12,000. According to Mr. Highton, lightning strikes one to three people every year near Lake Maracaibo.

There's no surefire way to prepare. But perhaps that will change. This week, scientists are sending weather balloons above Lake Maracaibo as part of a continuing, separate project that will help them better predict when and where lightning will strike.

NYT

In Latin America, Forests May Rise to Challenge of Carbon Dioxide

By JUSTIN GILLIS

MAY 16, 2016

Photo Forest and pasture land at an experimental research farm in Brazil. Credit Evaristo Sa/Agence France-Presse — Getty Images

A new study reports that recently established forests on abandoned farmland in Latin America, if allowed to grow for another 40 years, would probably be able to suck at least 31 billion tons of carbon dioxide out of the atmosphere.

That is enough to offset nearly two decades of emissions from fossil-fuel burning in the region. Abandoning additional pastures and allowing them to revert to tropical forest could soak up another seven billion tons of the gas, the scientists found.

Their paper, published in Science Advances, offers the most detailed estimates to date for a promising approach to combating climate change. Many Latin American governments have promised to encourage forest regrowth, as well as to combat the destruction of existing forests, in their long-term climate plans. But how hard they will push on either issue is unclear.

"This is a potential contribution that is sitting right under our noses," said the lead author, Robin L. Chazdon, a University of Connecticut ecologist who is working at the International Institute for Sustainability in Rio de Janeiro.

Correction: May 16, 2016

Because of an editing error, an earlier version of a headline with this article misstated the location of the forests studied. They were in locations throughout Latin America, not just in Brazil.

WSJ

Scientists Renew Push for Earthquake-Warning System on West Coast

Network could provide as much as several minutes advance notice

When a 6.0-magnitude quake hit Napa County, Calif., on Aug. 24, 2014, as much as 10 seconds advance notice went out to several dozen test volunteers in the San Francisco Bay Area. A 2014 file photo shows a facade in Napa following the earthquake. PHOTO: NOAH BERGER/ASSOCIATED PRESS

By Jim Carlton

May 17, 2016 5:30 a.m. ET

John Vidale was sitting in his office at the University of Washington in Seattle when a computerized voice on his Mac warned shaking from a nearby earthquake would hit in exactly two seconds.

Mr. Vidale didn't feel the earth move because the April 26 temblor was only a 2.5 magnitude quake, too small to be felt. "But if it was a big one," he would have a crucial few moments to "go to a corner of my office and make sure nothing falls on me," said Mr. Vidale, director of the Pacific Northwest Seismic Network based at the university.

For years, efforts have been under way to outfit the earthquake-prone West Coast with a system to warn residents before the shaking from a quake strikes—something like the test system that gave Mr. Vidale his alert. Bureaucratic barriers and a lack of funding have slowed its implementation.

Now, scientists are pressing government officials to speed up the process, touting evidence that the decadelong test phase of a U.S. system is ready for wide deployment.

Scientists have said California and Washington state are overdue for a major quake that could cost billions in economic losses and disrupt some of the country's major transportation and trade routes.

Like many developed places in earthquake zones, California has invested heavily in protecting cities from violent shaking. The work has included reinforcing bridges, overpasses and buildings. But many residents and office workers are still vulnerable because of certain types of construction expected to collapse in heavy shaking.

A warning system could help save lives in the event of a major quake, giving cities, schools and hospitals a chance to prepare and individuals a chance to take cover.

At an April conference of the Seismological Society of America in Reno, Nev., researchers presented data that showed a test system has largely worked.

When a 6.0-magnitude quake hit Napa County, Calif., on Aug. 24, 2014, for example, as much as 10 seconds advance notice went out to several dozen test volunteers in the San Francisco Bay Area—including to San Francisco's public transit system, known as BART, which in 2012 enabled slowing or stopping trains based on the alerts.

"We're at the point where the technology is basically there," said Graham Kent, director of the Nevada Seismological Laboratory at the University of Nevada, Reno. "But the challenge is to get a coordinated plan" to bring the system to the public.

The U.S. Geological Survey, the federal science agency that studies quakes and other natural hazards, has said the system could be deployed across the West Coast in as little as two years if Congress fully funds its portion of the $38 million needed to complete the $100-million system. But the money has been slow to come.

California Gov. Jerry Brown, in his revised budget plan, is calling on legislators to set aside $10 million to help complete the network in the Golden State.

The network includes seismic sensors to detect the earthquake's first waves, telecommunications equipment to relay them on, monitoring stations to triangulate a quake's size and a central operations center to analyze the data and send alerts out. The network will operate only along the West Coast and possibly Hawaii, with the first public alerts likely starting in the Los Angeles and San Francisco areas, said Doug Given, coordinator of the early-warning system for the USGS.

Modeled after an early-warning system in Japan, the U.S. network would provide as much as several minutes advance notice from the time a major earthquake strikes to when its violent shaking hits an urban area. Japan's system has been credited with potentially saving thousands of lives in past earthquakes.

But such systems are no guarantee. Those directly on top of a fault rupture wouldn't always receive a warning.

Much as the distance from a lightning strike can be determined by how long it takes for the sound of thunder to arrive, seismic sensors can detect the first weaker-shaking energy waves that ripple out from an earthquake before the slower, vibration waves follow.

Scientists have long known that vibrations from earthquake waves could be detected, but until recently the technology wasn't advanced enough to do so reliably. Mexico deployed a system after a 1985 earthquake killed more than 10,000 people, while Japan's system was set up after the 1995 Kobe quake left at least 6,000 people dead.

In 2006, the USGS started work on the West Coast network as a demonstration project, but the work picked up speed after the 9.0 magnitude earthquake that struck Japan's Tōhoku region in 2011, seismologists say.

"Tōhoku showed the early-warning system worked incredibly well," said Ronni Grapenthin, assistant professor of geophysics at New Mexico State University and a researcher in the earthquake project.

Soon after that quake, the Gordon and Betty Moore Foundation awarded $6 million to help jump-start an early warning effort that had been getting along on about $1.5 million a year. In February, the foundation added another $3.6 million to the effort.

The money has gone into beefing up the West Coast's network of earthquake sensors, as well as telecommunications equipment to relay the alerts.

"Any opportunity to have advance notice of an impending event moves you away from the reactive phase to the proactive phase," said Gary Gordon, business continuity leader at Boeing Co. BA -0.21 % , whose operations in Washington and California are among dozens of public and private facilities which have volunteered to test the technology.

For example, he said forklifts hauling an airplane wing would have time to lower the load to the ground so it won't fall and potentially cause injuries and damage. Other voluntary testers in the system, which has been in the works for 10 years, include the cities of Seattle and San Francisco, the Bay Area Rapid Transit District, Microsoft Corp. MSFT -0.98 % and Intel Corp. INTC 0.07 %

Among what's needed is more equipment to detect quakes. While major cities like Los Angeles and San Francisco have fairly extensive coverage, more sensors are needed to build out the network so less-populated areas and threatening faults are covered, Mr. Given said.

Once the system is complete, resident would receive alerts including on mobile phones, such as a faster version of the child-abduction Amber alerts. The real task, Mr. Vidale said, will be in delivering the message many ways and in educating the public what to do when they get a warning—such as whether to evacuate a building.

"If you have five seconds, teacher can get the kids under the desk," Mr. Vidale said. "But if you have 30 seconds to a minute, it gets a lot more complicated."

# # #